

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,022,553 B2  
APPLICATION NO. : 10/606539  
DATED : April 4, 2006  
INVENTOR(S) : Ahn et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On page 2, in field (56), under "U.S. Patent Documents", in column 1, line 11, delete "Morikawa" and insert -- Lin --, therefor.

On page 2, in field (56), under "Foreign Patent Documents", in column 2, line 7, after "3/1994" insert -- H01L/ 23/48 --.

On page 2, in field (56), under "Other Publications", in column 2, line 20, delete "-.3 mum" and insert -- 0.3  $\mu\text{m}$  --, therefor.

On page 2, in field (56), under "Other Publications", in column 2, line 20, delete "0.7 mum" and insert -- 0.7  $\mu\text{m}$  --, therefor.

On page 2, in field (56), under "Other Publications", in column 2, line 29, delete "(1998)," and insert -- (1988), --, therefor.

On page 2, in field (56), under "Other Publications", in column 2, line 50, delete "Cricuits"," and insert -- Circuits", --, therefor.

On page 2, in field (56), under "Other Publications", in column 2, line 51, after "Lett." insert -- , --.

On page 3, in field (56), under "Other Publications", in column 1, lines 21-22, delete "Applicaitions" and insert -- Applications --, therefor.

On page 3, in field (56), under "Other Publications", in column 1, line 22, delete "Reserach" and insert -- Research --, therefor.

On page 3, in field (56), under "Other Publications", in column 1, line 25, delete "Sb2Te3" and insert --  $\text{Sb}_2\text{Te}_3$  --, therefor.

On page 3, in field (56), under "Other Publications", in column 1, line 25, delete "Bi2Te3" and insert --  $\text{Bi}_2\text{Te}_3$  --, therefor.

On page 3, in field (56), under "Other Publications", in column 1, line 26, after "Electronics" insert -- , --.

On page 3, in field (56), under "Other Publications", in column 2, line 10, delete "Bi2Te3" and insert --  $\text{Bi}_2\text{Te}_3$  --, therefor.

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On page 3, in field (56), under "Other Publications", in column 2, line 19, delete "How" and insert -- Hot --, therefor.

On page 3, in field (56), under "Other Publications", in column 2, line 23, delete "Driving" and insert -- Driver --, therefor.

In column 3, line 57, delete "horizonal" and insert -- horizontal --, therefor.

In column 7, line 18, delete "et al," and insert -- et al., --, therefor.

In column 10, line 41, delete "Tsb<sub>3</sub>." and insert -- TSb<sub>3</sub>. --, therefor.

In column 12, line 30, delete "an" and insert -- at --, therefor.

In column 14, line 35, delete "The," and insert -- The --, therefor.

In column 15, line 49, in Claim 8, delete "(Bi<sub>3</sub>Te<sub>2</sub>)," and insert -- (Bi<sub>2</sub>Te<sub>3</sub>), --, therefor.

In column 15, line 63, in Claim 9, after "of the" delete "of the".

In column 16, line 11, in Claim 10, delete "Tsb<sub>3</sub>." and insert -- TSb<sub>3</sub>. --, therefor.

Signed and Sealed this

Eighth Day of August, 2006



JON W. DUDAS  
*Director of the United States Patent and Trademark Office*